

## What is claimed is:

1. An isolated polynucleotide comprising a member selected from the group consisting of:
  - (a) a polynucleotide having at least a 70% identity to a polynucleotide encoding a polypeptide comprising amino acids 1 to 256 of SEQ ID NO:2;
  - (b) a polynucleotide which is complementary to the polynucleotide of (a); and
  - (c) a polynucleotide comprising at least 15 bases of the polynucleotide of (a) or (b).
2. The polynucleotide of Claim 1 wherein the polynucleotide is DNA.
3. The polynucleotide of Claim 1 wherein the polynucleotide is RNA.
4. The polynucleotide of Claim 2 comprising nucleotide 1 to 771 set forth in SEQ ID NO:1.
5. The polynucleotide of Claim 2 comprising nucleotide encoding the amino acid sequence set forth in SEQ ID NO:2.
6. The polynucleotide of Claim 2 which encodes a polypeptide comprising amino acid 1 to 256 of SEQ ID NO:2.
7. An isolated polynucleotide comprising a member selected from the group consisting of:
  - (a) a polynucleotide having at least a 70% identity to a polynucleotide encoding the same mature polypeptide expressed by the cDNA contained in NCIMB Deposit No.40771;
  - (b) a polynucleotide complementary to the polynucleotide of (a); and
  - (c) a polynucleotide comprising at least 15 bases of the polynucleotide of (a) or (b).
8. A vector comprising the DNA of Claim 2.
9. A host cell comprising the vector of Claim 8.
10. A process for producing a polypeptide comprising: expressing from the host cell of Claim 9 a polypeptide encoded by said DNA.
11. A process for producing a cell which expresses a polypeptide comprising transforming or transfecting the cell with the vector of Claim 8 such that the cell expresses the polypeptide encoded by the cDNA contained in the vector.
12. A polypeptide comprising an amino acid sequence which is at least 70% identical to amino acid 1 to 256 of SEQ ID NO:2.

13. A polypeptide comprising an amino acid sequence as set forth in SEQ ID NO:2.

14. An antibody against the polypeptide of Claim 12.

15. An antagonist which inhibits the activity of the polypeptide of Claim 12.

5 16. A method for the treatment of an individual having need of FAB I comprising: administering to the individual a therapeutically effective amount of the polypeptide of Claim 12.

10 17. The method of Claim 16 wherein said therapeutically effective amount of the polypeptide is administered by providing to the individual DNA encoding said polypeptide and expressing said polypeptide in vivo.

18. A method for the treatment of an individual having need to inhibit FAB I polypeptide comprising: administering to the individual a therapeutically effective amount of the antagonist of Claim 16.

15 19. A process for diagnosing a disease related to expression of the polypeptide of Claim 12 comprising:

20 determining a nucleic acid sequence encoding said polypeptide.

21. A diagnostic process comprising:  
analyzing for the presence of the polypeptide of Claim 12 in a sample derived from a host.

20 22. A method for identifying compounds which bind to and inhibit an activity of the polypeptide of Claim 12 comprising:

25 contacting a cell expressing on the surface thereof a binding for the polypeptide, said binding being associated with a second component capable of providing a detectable signal in response to the binding of a compound to said binding, with a compound to be screened under conditions to permit binding to the binding; and

determining whether the compound binds to and activates or inhibits the binding by detecting the presence or absence of a signal generated from the interaction of the compound with the binding.

30 23. A method for inducing an immunological response in a mammal which comprises inoculating the mammal with FAB I, or a fragment or variant thereof, adequate to produce antibody to protect said animal from infection by a staphylococcus.

24. A method of inducing immunological response in a mammal which comprises, through gene therapy, delivering gene encoding FAB I fragment or a variant

thereof, for expressing FAB I, or a fragment or a variant thereof in vivo in order to induce an immunological response to produce antibody to protect said animal from disease.

2426. An immunological composition which, when introduced into a mammalian host, induces an immunological response in that mammal to a given FAB I polynucleotide or protein coded therefrom, wherein the composition comprises a recombinant FAB I polynucleotide or protein coded therefrom comprising DNA which codes for and expresses an antigen of said FAB I polynucleotide or protein coded therefrom.
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